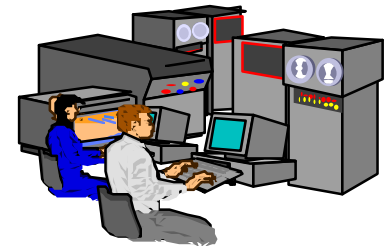


Information Systems Center/580

AETD Institutional Status Review



Presented by:

Margaret Caulfield
Associate Branch Head
Systems Integration & Engineering Branch
Information Systems Center

- **PROJECT STATUS**
- **TECHNOLOGY STATUS**
- **INSTITUTIONAL STATUS**
 - Awards, Papers, Conferences
 - Collaborations
 - Outreach
 - Safety
 - ISO 9000
 - Personnel
 - Travel
 - Training
 - Issues
- **RESOURCES**
- **SPECIAL PRESENTATION**
 - Wire Testbed

PROJECT STATUS

				Yes		No		Yes		No	
				Yes		No		Yes		No	
				Yes		No		Yes		No	
Hubble Space Telescope (HST)	HST (441)	582, 584, 586	(1) Delivered NSSC-1 Payload FSW to 442 for Aft Shroud Cooling (2) Delivered SSM 486 Flight Version FSW (3) Delivered and supported up-link of SSM power protection FSW changes (4) Supported 6 HST servicing mission ground test (SMGTs) as test conductor (5) Working with project to handle increased TDRSS scheduling requirements for July's "planet search" campaign		X			X		X	X
ESDIS: AM-1 Lead: Jack Leibe/421	ESDIS (423), AM-1 (421)	581, 582, 583, 586	(1) FSW IV&V Results Review and FSW Maintenance Readiness Review on 7/14/99 (2) Delivered new Flight Dynamics system to EOS Operations Center (3) Supported spacecraft 36 hour test, "Day in the Life" testing and mission rehearsals		X			X		X	X
ESDIS: PM-1 Lead: TBD	ESDIS (423), PM (422)	581, 582, 584	(1) AIRS and CERES instrument interface testing with the spacecraft was completed; spacecraft fault management problem uncovered (2) Engineering version of SIMMS, a next generation combination simulator and test tool, completed; PM-1 is the first mission to use this simulator (3) PM Mission Systems Manager position vacant		X			X		X	X
EO-1 Lead: Dan Mandl/584	NMP EO-1 (426)	583, 584, 586	(1) Delivered new Flight Dynamics system release to EO-1 Operations Center (2) Provided recommendation on EO-1 Science Planning and Processing functions including assessment of requirements, interfaces, designs and schedules		X			X		X	X

PROJECT STATUS (Cont'd)

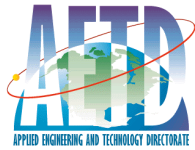
End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/Highlights/Comments	Tech Issues		Schedule Issues		Cost Issues		Staffing Issues	
				Yes	No	Yes	No	Yes	No	Yes	No
Landsat-7	Landsat (430)	581, 586	(1) Delivered LPS 4.1 E to Operations (2) Completed development of Web-based Landsat-7 Anomaly Management System (LAMS); operational 6/16/99 (3) Resolved problem with corruption of wideband data by replacing High Performance Direct Input/Output/VME (HIPDIO/VSIO) cards with new revs (4) Participated in I&T 3-day system test of Level 1 processing demonstrating the ability to distribute an average of 100 scenes per day and the ability to use Landsat-7 specific attributes to support search and order (5) Acquired approximately 6000 Landsat-7 engineering images (6) Started acquiring images for the EROS Data Center (EDC) archive		X		X		X		X
MAP Lead: Steve Coyle/581	MIDEX (410)	582	(1) Delivered new FSW for all 6 flight processors (2) Delivered software simulation of MAP ACE dynamics for use in HDS when hardware ACE is not available (3) Began FSW acceptance test phase		X		X		X		X
IMAGE Lead: Steve Coyle/581	MIDEX (410)	583	(1) Delivered commanding scripts for Science Data Pipeline		X		X		X		X
WIRE Lead: Pat Crouse/581	SMEX (410)	581, 584, 586	(1) WIRE Testbed funded by HQ for '99, '00 needs subscriptions (2) FOT made changes to spacecraft pointing constraints to increase efficiency of astroseismology observations		X		X	X			X
Triana Lead: John Catena/581	SMEX-Lite (410)	581, 582, 583, 586	(1) C&DH FSW design review 5/15/99 (2) Delivered Power PC-based software development system to the EPIC FSW team (LM) and to the NISTAR FSW team (Ball) (3) Completed C&DH FSW Build 1 testing (4) Completed device driver for QHSS high speed interface card and delivered it to the NISTAR team (5) Supported Single Design Review (SDR) 6/99		X		X		X		X

PROJECT STATUS (Cont'd)

End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/Highlights/Comments								
				Tech Issues		Schedule Issues		Cost Issues		Staffing Issues	
				Yes	No	Yes	No	Yes	No	Yes	No
NGST Lead: Jonathan Gal- Edd/581	STScI	581, 582	(1) Completed Software Functional Description Document (2) Staffing profile still being developed		X		X		X	X	
HORIZON (NEXUS/Redeye) Lead: Del Jenstrom/740		581, 582, 584	(1) Supported proposal development		X		X		X		X
SWIFT Lead: Tim Gehring/740	MIDEX (410)	581, 582, 584	(1) Supported final proposal preparation and preparation for August's on-site visit		X		X		X		X
IFMP Lead: Joe Sparmo/585	IFMP (401)	585	(1) Demonstrated IFMP software at the Agency CIO conference at Fairmont, WV (2) EIS prototype demonstrated to Arnold Holtz 6/99; prototype to be presented at CFO conference in 10/99		X		X		X		X
	Code 900	587	(1) Converted "Modern History of Space v2.0" for Remote Applications Center (RAC) Web site tutorial (2) Completed the first two phases of a project for Code 933 to provide WWW access and storage of the National Centers of Environmental Prediction Reanalysis Data Archives (3) Introduced on-line version of the new Goddard DAAC Newsletter, "The Global Scanner"		X		X		X		X
	Code 600	586, 587	(1) Designed a Web page for the Laboratory for High Energy Astrophysics (2) Began development of a Multi-Instrument Web-based visualization application for ISTP WIND mission		X		X		X		X
ESDIS	ESDIS (423)	586	(1) Obtained signatures on NASA-NASDA Catalog System IRD (2) Completed NASA NASDA Network cost sharing agreement (3) Supported the EOSDIS DAAC Manager's meeting in Fairbanks		X		X		X		X

PROJECT STATUS (Cont'd)

End Item Product/Service	Customer	Lead Code(s)	Major Accomplishments/Highlights/Comments	Tech Issues		Schedule Issues		Cost Issues		Staffing Issues	
				Yes	No	Yes	No	Yes	No	Yes	No
Operating Missions as Nodes on the Internet (OMNI) Lead: Jim Rash/588	SOMO/ISC	588, 581	(1) Completed dry runs for the upcoming support of the Eclipse 99 mission (2) Presented a "SOMO IP Mission Operations Plan" to SOMO (3) Finalized MOA with NASA/GRC for analysis and simulation studies		X		X	X			X
VisAGE/VET	ISC	588	(1) Product technology transferred to Altair, Inc. for commercialization		X		X		X		X
InVision	ISC	588	(1) Provided Triana video for the Triana System Status Review (2) Conducted design review for Image2000 product (3) Completed Image2000 Build 1 code		X		X		X		X
CGRO	Space Science Data Operations (630)	582	(1) Supported On-orbit analysis and recovery from TDRS ephemeris anomaly; ground uplink and recovery procedures identified and fixed		X		X		X		X
FAST	Space Science Data Operations (630)	582	(1) Delivered and supported uplink of FSW patch to increase capture of ACS magnetometer data to compensate for onboard fields survey circuit problem		X		X		X		X
TRMM	Mission and Data Systems (453)	582	(1) Developed and uplinked FSW patch to re-enable the ability to update orbit status time in response to PSIB orbit status time anomaly		X		X		X		X
Hitchhiker	Shuttle Small Payloads (870)	584	(1) Completed integration testing of next generation Hitchhiker onboard computer		X		X		X		X



TECHNOLOGY STATUS



➤ **ISC Strategic Technology Planning**

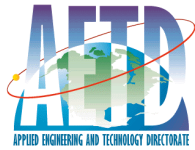
- **Completed ISC Strategic Technology Plan (Technology Roadmap) and ISC Technology Program Operating Plan**

➤ **Earth Science Technology Vision Workshop**

- **Led/Facilitated "SensorWeb" and "Information Synthesis" focus areas**

➤ **Integrated Synthesis Environment (ISE)**

- **Responded to HQ action, as GSFC representative, to identify all current Code S-funded Intelligent System and ISE activities**
- **Hosted working session on 7/21 with HQ, ARC and JPL representatives for a detailed far-term "needs analysis" and schedule and cost estimate for Intelligent System technologies for Earth and Space Science Enterprises**



TECHNOLOGY STATUS (Cont'd)

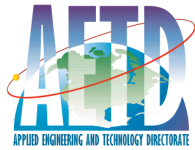


➤ Advanced Range Technology Initiative

- Completed proposal for the evaluation, prototyping, development and testing of new and innovative systems, processes and components in a launch range environment

➤ Usability Engineering (UE) Web Site

- Deployed a site offering UE services to all Goddard projects and providing education int the area of usability for increased customer satisfaction
- <http://aaaproduct.gsfc.nasa.gov/usability>

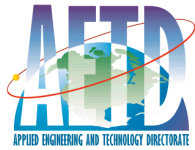


INSTITUTIONAL STATUS



AWARDS, PAPERS, CONFERENCES

- Ray Whitley/582 received an Exceptional Service Medal
- Presented "Using Java Technology and XML for Astronomical Instrument Control" and led "Java in Astronomy" session at the JavaOne Conference
- Presented an "Experience Report" at the 4th annual Object Technology Center Conference in Baltimore
- Exhibited poster paper on Goddard DAAC's TRMM Field Experiments at AGU '99 Meeting in Boston
- Participated in the Earth Science Information Partners Federation meeting leading the the Subsetting Working Group



INSTITUTIONAL STATUS



COLLABORATIONS

- **The Science Mission Assistant and Research Tool (SMART) project established a basis for partnership with the NRL**
- **Code 582 and APL have agreed to co-host a FSW Workshop in September focusing on FSW Test Initiatives**
- **Collaborated with Code 933 and Bowie State University on "Cinematography of Science" proposal**

OUTREACH

- **Hosting summer interns from the National Space Club Scholars program Equal Opportunity Program Office Summer Internship Program, WISE Program, and SHARP Program**
- **Participated in Children and Research Engineers Enjoy Rockets (CAREERs) program with Gynns Falls Elementary School in Baltimore**
- **Wallops Control Center tours conducted for MEP class, Goddard Space Academy students, elementary school teachers, SHARP students and summer students from U of MD Eastern Shore**
- **Participated in Fruitland Intermediate School Job Fair discussing jobs and projects at NASA with 5th and 6th graders**
- **Participated in GSFC Community Day with GES DAAC booth**

➤ **SAFETY**

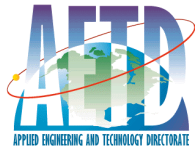
- **Bill Kelly named Code 580 Safety Officer**
- **Employee injured after fall caused by missing floor tile**

➤ **ISO 9000**

- **Codes 580, 582, 583, 584, 586 and 587 completed GSFC internal audits**

➤ **ISC WEB**

- **New site launched 7/8**



INSTITUTIONAL STATUS



PERSONNEL

Total Onboard as of 5/1/99	=	303
	+	3
<hr/>		
Total Onboard as of 7/22/99	=	306

➤ Successful Position Fills:

- ESDIS/Interface Engineer (GS12/13) ← Selection made; Cert In 500
- MIDEX Senior Operations Engineer (GS14/15) ← Selection made; Cert In 500
- HST/FSW IPT Lead (GS 14) ← Filled with K. Rehm; Onboard
- 584/Wallops (Freshout) ← Filled with S. Bogen; Onboard
- Web Technician (Freshout) ← Filled with C. Durachka; Onboard
- IFMP Computer Engr Specialist (GS 13) ← Selection made; Cert In 500
- HST Senior Operations Engineer (GS14/15) ← Filled with K. Walyus; Onboard

PERSONNEL

➤ Critical Position Status:

- ESDIS Science Data System Eng (2 @ GS13/14) ← Selection Made; Cert in 580
- ESDIS Interface Engineer (GS 13/14) ← Selection Made; Cert in 580
- ESDIS DAAC Systems Engineer (GS 13/14) ← Selection Made; Cert in 580
- EDOS Engineer (GS13/14) ← In Discussion with ESDIS Project
- NGST/ Sr. FSW Systems Engineer (GS 14) ← All Source; Ad Closed 7/19
- FSW Engineer (2 @ GS 13) ← All Source; Ad Closed 7/2
- Mission Director (2 @ GS 13) ← All Sources CPP; no qualified applicants; Repost
- PM Senior Operations Engineer (GS 14/15) ← In OHR for Posting
- EO-1 Ground Systems Manager (GS 13/14) ← CPP Closed 7/15

PERSONNEL

➤ Critical Position Status (Cont'd):

- ICESat Mission Systems Engineer (GS 14) ← In Discussion with ICESat
- 581 Branch Head (GS 14/15) ← Interviews in Process
- ISE (Freshout) ← FIS Candidate; Working on CPP pkg
- Advanced Architectures (Freshout) ← FIS Candidate; Working on CPP pkg
- Science Data Systems Eng. (Freshout) ← FIS Candidate; Working on CPP pkg
- Secretary (Branch) (2 @ GS 5/6) ← All Source; Interviews in Process
- Secretary (Center) (GS 6/7) ← CPP Closed 7/1

ISSUES

ISSUES	ACTION PLANS	STATUS
<p><u>FACILITIES:</u></p> <p>HVAC construction disruptive and counterproductive for employees</p> <p><u>VACANCIES:</u></p> <p>Code 582 FSW Civil Servant staff continue to depart GSFC</p>	<p>Improved coordination by Facilities, with Directorate and Engineering Centers</p> <p>Prioritizing work and targeting new hires; using contractors wherever possible</p>	<p>Options for acceleration of Building 23 HVAC work still being studied by FMD</p> <p>Outside hiring to fill some positions</p>